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IEEE Standard for Software Configuration Management Plans

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Purpose:

Establishes the *minimum required contents* of a Software Configuration Plan and defines the specific activities to be addressed and their requirements for any portion of a software product's life cycle.

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The existence of an IEEE Standard does not imply that there are no other ways to produce, test, measure, purchase, market, or provide other goods and services related to the scope of the IEEE Standard.

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This Standard applies to the entire life cycle of critical software.

The Software Configuration Management Plan (the Plan) documents

- **what SCM activities are to be done,**
- **how they are to be done,**
- **who is responsible for doing specific activities,**
- **when they are to happen, and**
- **what resources are required.**

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The Plan shall be partitioned into the following six classes:

1. **Introduction: Purpose, Scope, Key Terms, and References.**

2. **SCM Management: *(WHO?)* Identifies the responsibilities and authorities for accomplishing the planned activities.**

3. **SCM Activities: *(WHAT?)* Identifies all activities to be performed.**

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The Plan shall be partitioned into the following six classes:

4. **SCM Schedules: (WHEN?) Identifies the required SCM activities with the other activities in the project.**

5. **SCM Resources: (HOW?) Identifies tools and physical and human resources required for execution of the plan.**

6. **SCM Plan Maintenance: Identifies how the Plan will be kept current while in effect.**

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Introduction:

1. **Overview of the software development project.**
2. **Identification of the Software CI (s) to which SCM will be applied.**
3. **Identification of other software to be included (e.g., support or test software).**
4. **Relationship of SCM to the hardware or systems configuration management activities.**
5. **The degree of formality, dept of control, and portion of the software life cycle for applying SCM.**
6. **Limitations, such as time constraints.**
7. **Assumptions that might have an impact on the cost, schedule, or ability to perform defined SCM activities.**

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SCM Management:

1. **Organization**
2. **SCM Responsibilities**
3. **Applicable Policies, Directives, and Procedures**

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SCM Activities:

1. **Configuration Identification**
2. **Configuration Control**
3. **Status Accounting**
4. **Configuration Audits and Reviews**

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1. **Configuration Identification**

   - **Identifying Configuration Items**
   - **Naming Configuration Items**
   - **Acquiring Configuration Items**

2. **Configuration Control**

   - **Requesting Changes**
   - **Evaluating Changes**
   - **Approving or Disapproving Changes**
   - **Implementing Changes**

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3. **Configuration Status Accounting**

4. **Configuration Audits and Reviews**

5. ***Interface Control***

6. ***Subcontractor/Vendor Control***

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SCM Schedules:

1. **Establishes the sequence and coordination for the identified SCM activities and events.**

2. **Dependencies among all SCM activities (Milestones and events).**

   - **Configuration Baselines**
   - **Implementation of Change Control**
   - **Start and completion dates for a Configuration Audit**

3. **Duration of the Plan.**

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SCM Resources:

1. **Software Tools**
2. **Techniques**
3. **Equipment**
4. **Personnel**
5. **Training necessary for the implementation of the specified SCM activities**

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SCM Plan Maintenance:

1. **Who is responsible for monitoring the Plan.**
2. **How frequently updates are to be performed.**
3. **How changes to the Plan are to be evaluated and approved.**
4. **How changes to the Plan are to be made and communicated.**

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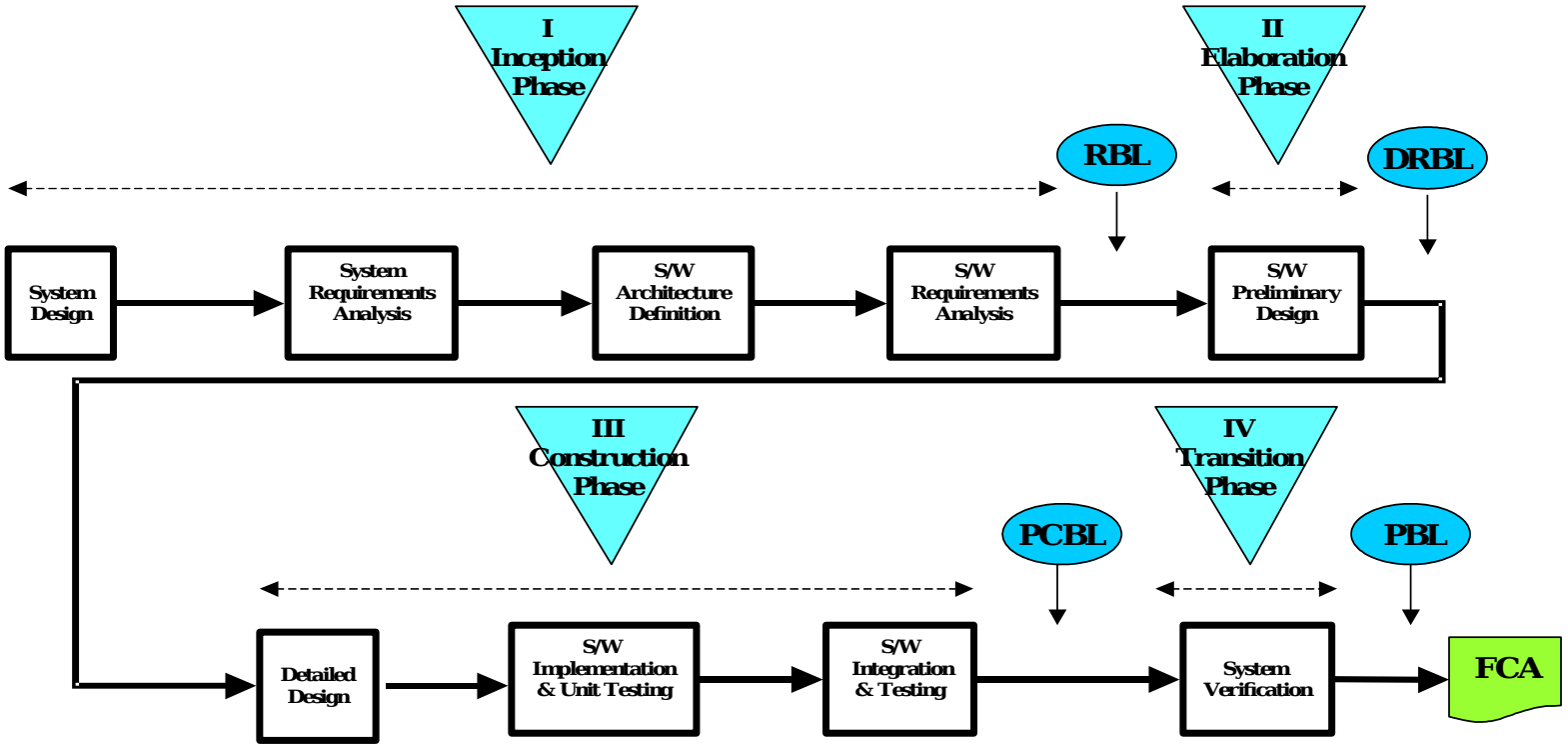

Baselines & Audits	
RBL	Requirements Baseline
DRBL	Design Release Baseline
PCBL	Product Configuration Baseline
PBL	Product Baseline
FCA	Functional Configuration Audit

Software Lifecycle Phases	
I	Inception Phase
II	Elaboration Phase
III	Construction Phase
IV	Transition Phase

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Summary:

The IEEE Standard permits significant flexibility in preparing an SCM Plan.

A successful Plan reflects its project environment.

It should be written in terms familiar to its users and should be consistent with the development and procurement processes of the project.

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